Appl. No.: 10/652,986

Amdt. dated: August 10, 2006

Reply to Office Action of: May 18, 2006

### Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

## **Listing of Claims:**

1. (currently amended) A computer-readable storage medium having a program for use in [[an information processing apparatus]] a host computer having a function of displaying at a user interface a plurality of management information items expressing access status of a communication path for sending a data input/output request from said host computer to a storage device and returning result of the access request to said [[information processing apparatus]] host computer, said storage device having a plurality of disk drives storing data sent from said host computer and a disk controller controlling to store data sent from said host computer to at least one logical volume corresponding to the plurality of disk drives, said communication path providing communication between a host port of said information processing device, a disk controller port of said disk controller, a communication cable connecting between said host port and said disk controller port, and a logical volume of said storage device, said program comprising:

code for updating at least one of said management information items being displayed to express present access status of said communication path when detecting that access failure occurs at said communication path based on an access to said storage device, and/or updating at least one of said management information items being displayed when receiving from said user interface an input for updating said management information items being displayed;

code for displaying information between a communication path ID of said communication path, a disk controller port ID of said disk controller port, a logical volume ID of said logical volume of said storage device, and state of said communication path indicating off-line or on-line; and

code for changing the state of said communication path [[from on-line to off-line]] in which failure has occurred among displayed plurality of communication paths based on receiving failure information from said storage device, said failure information being

PATENT

Appl. No.: 10/652,986

Amdt. dated: August 10, 2006

Reply to Office Action of: May 18, 2006

related to failure of said communication path while a failure has occurred in any one of said displayed plurality of communication paths.

# 2. (canceled)

- 3. (previously presented) The computer-readable storage medium according to claim 1, wherein in accordance with an input for updating said management information items being displayed, all of said management information items being displayed or part of said management information items being displayed is updated to express present access status of a communication path.
- 4. (currently amended) The computer-readable storage medium according to claim 3, wherein said part of said management information items to be updated includes at least one of an execution number of data input/output as performed between said storage device and said [[information processing apparatus]] host computer and a number indicative of access failure occurred at said communication path in proper execution of said data input/output.
- 5. (currently amended) [[An information processing apparatus]] A host computer having a function of displaying at a user interface a plurality of management information items concerning access status of a communication path for sending a data input/output request from said host computer to a storage device and returning result of access to said [[information processing apparatus]] host computer, said storage device having a plurality of disk drives storing data sent from said host computer and a disk controller controlling to store data sent from said host computer to at least one logical volume corresponding to the plurality of disk drives, said [[information processing apparatus]] host computer comprising:

a host port which is in communication, via said communication path, with a disk controller port of said disk controller, a communication cable connecting between said host port and said disk controller port, and a logical volume of said storage device,

Appl. No.: 10/652,986

Amdt. dated: August 10, 2006

Reply to Office Action of: May 18, 2006

a controller configured to update at least one of said management information items being displayed to express present access status of said communication path when detecting that access failure occurs at said communication path based on an access to said storage device, and/or to update at least one of said management information items being displayed when receiving from said user interface an input for updating said management information items being displayed;

wherein said management information items include a communication path ID of said communication path, a disk controller port ID of said disk controller port, a logical volume ID of said logical volume of said storage device, and state of said communication path indicating off-line or on-line; and

wherein said controller is configured to change the state of said communication path [[from on-line to off-line]] in which failure has occurred among displayed plurality of communication paths based on receiving failure information from said storage device, said failure information being related to failure of said communication path while a failure has occurred in any one of said displayed plurality of communication paths.

### 6. (canceled)

- 7. (currently amended) The [[information processing apparatus]] host computer according to claim 5, wherein in accordance with an input for updating said management information items being displayed, all of said management information items being displayed or part of said management information items being displayed is updated.
- 8. (currently amended) The [[information processing apparatus]] host computer according to claim 7, wherein said part of said management information items to be updated includes at least one of an execution number of data input/output as performed between said storage device and said [[information processing apparatus]] host computer and a number indicative of access failure occurring at said communication path in proper execution of said data input/output.

**PATENT** 

Appl. No.: 10/652,986

Amdt. dated: August 10, 2006

Reply to Office Action of: May 18, 2006

9. (currently amended) A control method of [[an information processing apparatus]] a host computer having a function of displaying at a user interface a plurality of management information items concerning access status of a communication path for sending a data input/output request from said host computer to a storage device and returning result of the request to said [[information processing apparatus]] host computer, said storage device having a plurality of disk drives storing data sent from said host computer and a disk controller controlling to store data sent from said host computer to at least one logical volume corresponding to the plurality of disk drives, said communication path providing communication between a host port of said information processing device, a disk controller port of said disk controller, a communication cable connecting between said host port and said disk controller port, and a logical volume of said storage device, said method comprising:

updating at least one of said management information items being displayed to express present access status of said communication path when detecting that access failure occurs at said communication path based on an access to said storage device, and/or updating at least one of said management information items being displayed when receiving from said user interface an input for updating said management information items being displayed;

displaying information between a communication path ID of said communication path, a disk controller port ID of said disk controller port, a logical volume ID of said logical volume of said storage device, and state of said communication path indicating off-line or on-line; and

changing the state of said communication path [[from on-line to off-line]] in which failure has occurred among displayed plurality of communication paths based on receiving failure information from said storage device, said failure information being related to failure of said communication path while a failure has occurred in any one of said displayed plurality of communication paths.

## 10. (canceled)

11. (previously presented) The control method according to claim 9, wherein in accordance with an input for updating said management information items being

**PATENT** 

Appl. No.: 10/652,986

Amdt. dated: August 10, 2006

Reply to Office Action of: May 18, 2006

displayed, all of said management information items being displayed or part of said management information items being displayed is updated.

- 12. (currently amended) The control method according to claim 11, wherein said part of said management information items to be updated includes at least one of an execution number of data input/output as performed between said storage device and said [[information processing apparatus]] host computer and a number indicative of access failure occurring at said communication path in proper execution of said data input/output.
- 13. (new) The computer-readable storage medium according to claim 1, wherein the state of said communication path is changed in real time based on receiving failure information from said storage device.
- 14. (new) The host computer according to claim 5, wherein the state of said communication path is changed in real time based on receiving failure information from said storage device.
- 15. (new) The control method according to claim 9, wherein the state of said communication path is changed in real time based on receiving failure information from said storage device.